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Thomson

Thomson-Houston

Electric Light Company.

PROSPECTUS.

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Pamphlet #8



INTRODUCTORY.

The invention of the modern Dynamo-Electric Machine, has opened a new era in the commercial applications of electricity. By means of these machines, mechanical force derived from any source, such as a steam engine or water-wheel, is readily and economically converted into electrical energy or current.

The electrical force thus developed may be used commercially in a number of ways, prominent among which we note the following, viz:

THE ELECTRIC TRANSMISSION OF POWER.

ELECTRO-METALLURGY.

ELECTRIC TELEGRAPHY.

ELECTRIC ILLUMINATION.

Though the field is extensive in each of these directions, yet it is in the last named use of electricity, namely, to artificial illumination, that the electric current is finding its most extensive and profitable application.

Successful electric illumination is indeed an accomplished fact. In the numerous instances in which it has lately replaced extended systems of gas lighting, it has done its work so thoroughly, that it would be almost impossible to again replace it by gas.

Nor is this growth in popular favor unwarranted. Electric lighting possesses so many advantages over other systems of artificial illumination, that it must, in the near future, almost entirely replace them.

It has been estimated that there are some \$400,000,000 invested, in the United States alone, in the manufacture and distribution of illuminating gas. Since electric lighting is but one of the commercial applications of the current developed by Dynamo-Electric machines, it is evident that the field opened for the sale of such electrical apparatus must be a very extended one.

The comparatively small cost of manufacture of the above-mentioned apparatus, as compared with its selling price, together with the extended market for the same, seem to offer a rare opportunity to capitalists for a safe and profitable investment.

It is purposed to form a joint stock company for the manufacture and sale of the Dynamo-Electric apparatus of the Thomson-Houston system—a system which is now in extensive successful operation in various portions of the United States.

PROSPECTUS.

THE
THOMSON-HOUSTON ELECTRIC LIGHT CO.

CAPITAL, - - - \$300,000

IN 5000 SHARES OF \$100 EACH.

The above-named company, which is to be incorporated under the laws of the State of Pennsylvania, will own a sole license from the American Electric Company, of New Britain, Connecticut, to manufacture and sell the electric light apparatus of the Thomson-Houston system, in the States of Pennsylvania, New Jersey, Delaware, and the City of Baltimore.

The electric apparatus embraced in the above license, includes the Dynamo-Electric machines, Electric Lamps, and Automatic Current Regulators, covered by joint and individual patents, granted by the United States to Prof. Elihu Thomson, of New Britain, Connecticut, formerly of Philadelphia, and to Prof. Edwin J. Houston, of Philadelphia.

For all electric light apparatus manufactured under the above mentioned license, the Thomson-Houston Electric Light Company are to pay to the American Electric Company of New Britain, a royalty of ten per centum on the selling price thereof. In consideration of this royalty, the American Electric Company, of New Britain, agrees to defend, at its own expense, the afore-mentioned patents, against all infringement and suits for infringement.

Besides the manufacture of Dynamo-Electric machines for Electric Motors, Electro-plating, Electric Lighting, and the various apparatus connected with these uses of the electric current, the Thomson-Houston Company purpose entering into the manufacture of the carbon electrodes, or points, used in connection with systems of arc illumination. The profits on the manufacture of this essential article of electric lighting are very large, and

since the territory, in which the company can manufacture and sell this product, is not limited to any part of the country, the profits to be realized from this branch of the business will be considerable.

The increasing public interest shown in the use of the electric light, together with the large profits realized by those already in the field, have caused electric light companies to be organized in all parts of the country. To prevent incompetent or irresponsible parties from entering the field, as well as for the protection of the public generally, a combination has been formed of six of the wealthiest and most influential electric light companies in the country. The objects of this combination are set forth in the following circular:

ELECTRIC LIGHT.

In furtherance of our several interests, and for the protection of capitalists and the public generally, notice is hereby given that all parties manufacturing, selling, using or having in their possession electrical apparatus which infringes the patents of the *Gramme Electrical Company*, or any of the numerous patents belonging to the other subscribers hereto, *will be prosecuted to the fullest extent of the law* by all the subscribing companies. The patents owned by the undersigned cover the fundamental principles involved in all the existing systems of lighting by electricity, and cannot be successfully avoided by outside companies.

THE GRAMME ELECTRICAL CO.

THE BRUSH ELECTRIC CO.,

of Cleveland, Ohio.

THE UNITED STATES ELECTRIC LIGHTING CO.,

of New York.

THE AMERICAN ELECTRIC CO.,

of New Britain, Conn.

THE FULLER ELECTRIC CO.,

of New York.

THE WESTERN ELECTRIC LIGHT CO.,

of Newark, N. J.

THE JABLOCHKOFF ELECTRIC LIGHTING CO.,

of New York.

The Thomson-Houston Electric Light Co., holding its license from the American Electric Company, of New Britain, Connecticut, one of the members of the Gramme Company, will, of course, enjoy all the advantages of the combination.

Some of the advantages claimed for the Dynamo-Electric machines of the Thomson-Houston system, and which have been established by the test of actual use, are the following, viz:

I. Extreme Simplicity of Construction.

The revolving portion or armature, in which the current is developed, is, perhaps, the simplest in the world, being wrapped with but three coils of wire, while the commutator, or portion from which the current is collected, is composed of but three pieces of copper.

II. Durability.

The comparatively few parts of which the machine is composed, insures an unusual degree of durability. The commutator is especially designed for securing extended wear and ease in removing for purposes of cleansing or repair.

III. Absence of Injurious Heating of the Machine on a Prolonged Run.

These advantages result from the peculiar construction of the machines, and from the proper proportioning of their parts.

IV. Quiet Running.

Especial care has been given in the design of the machines, to avoid the humming noise produced during running, which is so often an objectionable feature of other generators.

V. The Continuous Character of the Current Produced, and the consequent advantages thereof.

VI. Economy of Motive Power.

The machines of this system give an unusually high economy of conversion of power, and compare favorably in this respect with any other machines in the market. That is to say, they yield the greatest possible quantity of electricity, in proportion to the amount of power consumed in driving the machines.

VII. The Automatic Regulation of the Current.

A regulator attachment of simple construction, attached to the collecting brushes of the machine, automatically adjusts the current to suit the number of lamps in use. This adjuster possesses the further advantage of compensating to some extent for changes in the speed of the machine, due to unsteady power.

The Thomson-Houston is the only system that permits the automatic adjustment of the collecting brushes in the commutator, and is controlled by their patents.

The use of the automatic adjustment of the commutator, gives to this system the great advantage of being able to put out one or more lights at the lamps, without changing the speed of the generator or attending to it in any way, and with an economy of horse-power and current proportionate to the number of lights extinguished. Thus a machine supplying twenty-four lights in its circuit, may have them all put out but one, while the speed is the same, but the horse-power is accordingly reduced. This variability is not possessed by any other system in use, and is a peculiarity of the simple automatic regulating apparatus and generators of the Thomson-Houston patents.

The improvements effected in the Electric Lamps of this system include :

1. *Steadiness and durability of the light.*
2. *The possibility of maintaining a great number of lights in the same circuit.*
3. *Simplicity of construction, and consequent durability of the lamps.*
4. *A great amount of light in proportion to the current supplied to the lamp.*

The Electric Lamp used in this system is of plain, neat outline, and combines several novel devices, which enhance the convenience of its use. The box contains a regulating mechanism, remarkable for its simplicity and effectiveness. It regulates the length of arc or space between the carbon points, without clock-work or dash pots.

It is self-adjusting in all respects. The removal of carbons is made without taking off or moving the globe. The light is automatically extinguished when the carbons are burnt too short, thus avoiding injury to the carbon holders, the circuit remaining closed at all times. The parts are arranged so as to cast the minimum of shadow, and to obtain the greatest amount of light from the electric current supplied to the lamps. The light is extinguished or relighted at any time by moving a switch attached to the lamp.

The Thomson-Houston system of electric lighting is now in extensive and successful use in many parts of the country. We append a partial list of places where it may be seen in practical operation.

RIGGS HOUSE.....	Washington, D. C.
PHENIX IRON CO.....	Phoenixville, Pa.
M. SCHALL'S.....	York, Pa.
W. C. ALLISON CAR WORKS	Thirty-second and Walnut, Philadelphia.
EDGEMOOR IRON CO.....	Edgemoor, Del.
RIDGWAY PARK.....	Philadelphia.
J. M. SHARPLESS.....	Riverside Dye Works, 22 N. Front St., Phila.
GIRARD HOUSE.....	Ninth and Chestnut Streets, Philadelphia.
THE WENTWORTH HOTEL.....	New Castle, N. H.
LURAY CAVE.....	Page County, Va.
JOHN ULLMAN.....	Ninth and Locust Streets, Philadelphia.
BALDWIN LOCOMOTIVE WORKS.	Broad Street, Philadelphia.
KEYSTONE BRIDGE COMPANY.	Pittsburgh, Pa.
P. H. GLATFELTER.....	Spring Forge, Pa.
SCHALL & KING.....	Middletown, Pa.
JOHN GARDINER & CO.....	Continental Brewery, 21st and Washington Avenue, Philadelphia.

*Persons desiring an interest in the Thomson-Houston Electric
Light Company, can apply for further information to*

PROF. E. J. HOUSTON,

Central High School, Philadelphia,

or

READ & PETTIT, Attorneys at Law,

518 Walnut Street, Philadelphia.